



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

VOGEL *ET AL.*

Group Art Unit: 1754

Application Serial No.: 09/645,554

Examiner: HENDRICKSON, S.L.

Filed: August 25, 2000

Title: FURNACE CARBON BLACK, PROCESS FOR PRODUCTION AND USE THEREOF

September 16, 2002

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AMENDMENT

Hon. Commissioner of Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action dated May 15, 2002, please amend the application as follows and consider the following remarks.

IN THE CLAIMS:

Please cancel claim 5 without prejudice or disclaimer.

Please amend the following claim:

1. (Amended) A furnace carbon black, having a hydrogen content of greater than 4000 ppm, determined by CHN analysis, and a peak integral ratio, determined by inelastic neutron scattering, of non-conjugated hydrogen atoms ( $1250\text{ cm}^{-1}$ – $2000\text{ cm}^{-1}$ ) to aromatic and graphitic hydrogen atoms ( $1000\text{ cm}^{-1}$ – $1250\text{ cm}^{-1}$  and  $750\text{ cm}^{-1}$ – $1000\text{ cm}^{-1}$ ) of from 1.17 to 1.22.

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Please add the following new claim:

6. (New) An electrocatalyst comprising a furnace carbon black, having a hydrogen content of greater than 4000 ppm, determined by CHN analysis, and a peak integral ratio, determined by inelastic neutron scattering, of non-conjugated hydrogen atoms ( $1250\text{ cm}^{-1}$ – $2000\text{ cm}^{-1}$ ) to aromatic and graphitic hydrogen atoms ( $1000\text{ cm}^{-1}$ – $1250\text{ cm}^{-1}$  and  $750\text{ cm}^{-1}$ – $1000\text{ cm}^{-1}$ ) of less than 1.22, wherein said furnace black is the support material for said electrocatalyst.